

United States Department of Agriculture * Forest Service * Santa Fe National Forest

It has been an amazing and difficult year. The Santa Fe National Forest witnessed three major fires make a run at local communities. The Forest was closed for a record two months to public access. Drought conditions caused perennial streams to dry up and whole fish populations rot in the sun.

It appears this is only the beginning. With drought predictions reaching as far as 2015, and forest health conditions worsening with beetle outbreaks, the forest is posed for potential disaster. Short stream segments with fragmented populations of Rio Grande cutthroat trout may no longer be a viable place to hold this rare fish.

Because of this, I decided on a snow theme for this year's report in hopes that the mountains would receive a ton of snowpack, saturating the highlands.

Despite all this potential gloom, the Santa Fe National Forest Fisheries Program went above our previous field season with monumental data collection, restoration designs, and steps towards native species recovery. Even more, I was thrilled to finally hire a full-time Forest Education Coordinator. Lisa Matlock has already started to take us far with new concepts and programs that have reached citizens in Albuquerque, Santa Fe, and forest communities.

The year started with the candidate assessment of Rio Grande cutthroat trout, which was a gift. This effort focused energy in further developing plans to recover the fish. I was proud of all the intense work and support that went into our forest's review and the recovery planning that followed. I would never recommend going through a candidate assessment while planning a wedding, getting married and heading off on an expeditious month-long trek in Peru for a honeymoon. Not sure how my program pulled together the assessment and my fiancée still married me. But it all happened.

We went further than 2001 simply because of the awesome support the program had from our partners, forest and region-wide contributors, and an outstanding staff that worked for the fisheries program.

We verified mystery populations of Rio Grande cutthroat trout, surveyed waters that had never been inventoried, removed non-native fish, expanded our restoration program and developed stronger partnerships. And this is all preparing us for these next five years which will be thick with watershed restoration projects that will include returning large wood to the stream, increasing beaver habitat, and bringing back native fish to waters they have not breathed in since Roosevelt was President. Which one, you ask? It depends on which stream we are talking about.

2003 will be a challenging year with pending budget cuts and the loss of the Assistant Forest Fisheries Biologist, James Simino. James was a significant part of the success and will be greatly missed. But he invites us to snorkel with him in the big waters of the Rogue River in Oregon where he landed his first permanent job with the Forest Service. The loss of James and the struggle with a meager budget offers us an opportunity to further strengthen our partnerships and coordinate our efforts.

The excitement is here.

-Sean Ferrell
Forest Fish Biologist
1 November 2002

The Illustrious Staff

**Sean Ferrell, Forest Fisheries
Biologist**

*National Rio Grande Cutthroat Trout
Coordinator; National Aquatic
Education Committee Chair; Regional
Stream Habitat Inventory Coordinator*



**Lisa Matlock, Forest Education
Coordinator**

*Respect the Rio Education Coordinator,
Fish Webmaster, Volunteer Coordinator*



**James Simino, Assistant Forest
Fisheries Biologist**

*Habitat Team Leader, Quality Control
Coordinator, GPS/GIS Database
Manager*



Chris Gatton, Fisheries Biologist
Pecos Team Leader, District Biologist



The Field Crew

Pecos River Team

Damon Goodman, Team Leader

Murray Boatright

Sarah Eddy, SCA Intern



L to R: Sarah, Murray, Damon.

San Antonio Team

Matt Andre, Team Leader

Serina Adams

Amos Corrales, Hutton Student



L to R: Serina, Matt, Amos

Porvenir Team

Clayton Crowder, Team Leader

Carlos Herrera



L to R: Carlos, Clay

Bull Creek Team

Christa Helena Strickwerda, Team

Leader

Sarah Eddy, SCA Intern

Monica Bustamonte



Christa with brook trout

Volunteers

Tony Luciano

Jeanette Kelly

Jennifer Wenberg

Joe Weber

Alison Novak

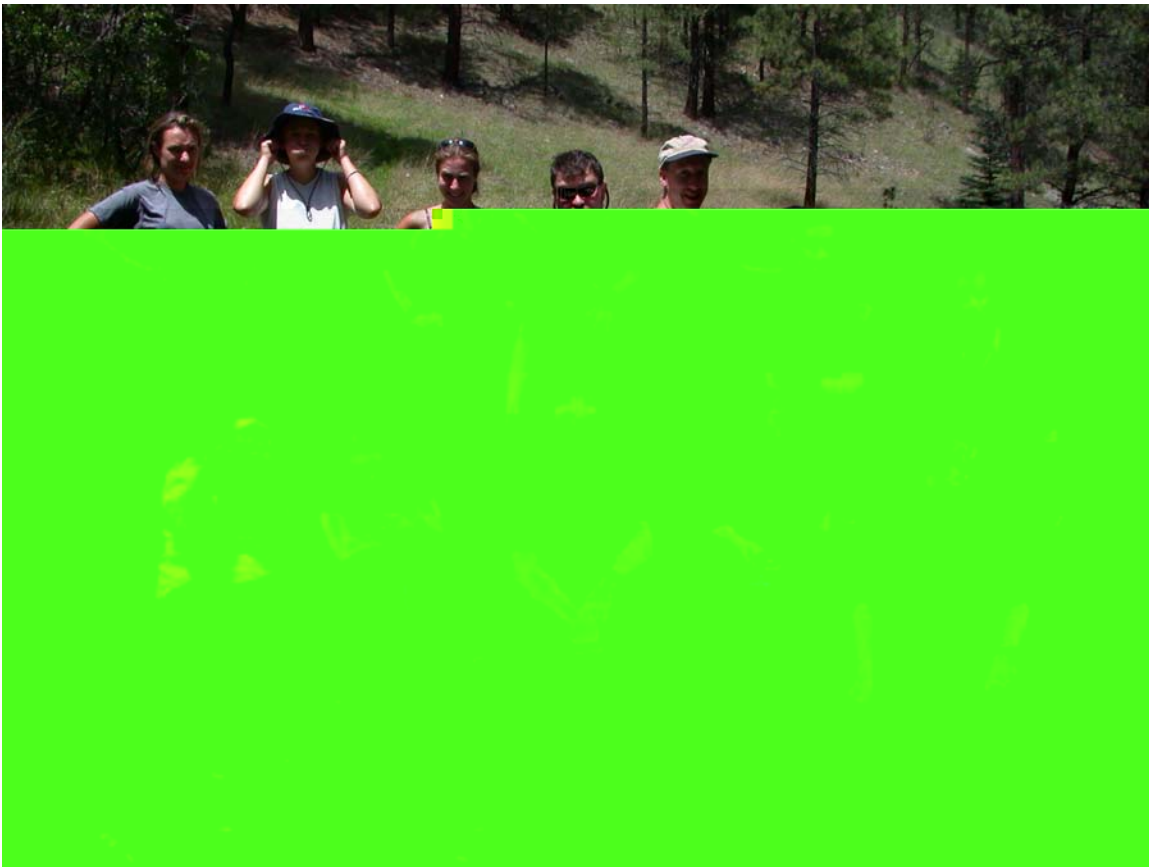
Hutton Students

Amos Corrales

Peter Sena

Jose Morfin

Curtis Julian



Pecos River Snorkeling Team:

Bottom L to R: Lisa, Sarah, Clay, Matt, Carlos; Top L to R: Alison, Christa, Serina, James, Sean, Damon, Murray

Partners and Contributors

Mary Orr
Jo Wargo
Ray Borrego
Anna Jaramillo
Bill Britton
Julie Luetzelschwab
Danielle Diehl
Juan Martinez
Amy Unthank
Southwest Regional Office
Donna Storch
Art Etter
Deby Sarabia
Kendall Brown
Kenny Martinez
Gonzalo Varela
John Buehler
Richard Montoya
William Eaton
Sherry Gaston
Chris Jenkins
Alison Dean
Freddy Velasquez
Michael Lujan
Pecos Fire Program
Jemez Fire Program
Valles Caldera National Preserve
Gary Ziehe
Dennis Trujillo
Carson National Forest
Bruce May
State of New Mexico Game and Fish
Betsy Reed
Barry Wiley
Sue Swift-Miller
Colorado Division of Fisheries
Peter Wilkinson
Yvette Paroz
Rick Castell
Eric Frey
Michael Martinez
Trout Unlimited
Frank Weissbarth
Bill Schudlich
Jan Crawford
Andrew Kelton
Bosque School
Rich Schrader
Dan Shaw
Beth Holtzman

New Mexico Trout
High Desert Angler
Seasports, Inc.
New Mexico Environment Department
Doug Eib
Seva Joseph
Gary Schiffmiller
Bob Calamusso
New Mexico State University
New Mexico Highlands University
Western Washington University
Student Conservation Association
Colorado State University
Nicole MacRury
American Fisheries Society
Lincoln National Forest
Mount Hood National Forest
Gary Asbridge
Hugo Magaña
Ronnie Maes
Rocky Mountain Research Station
Seven Springs Fish Hatchery
Aquinaldo Rodriguez
Doc Minter
Pat & Lance Kloefkorn
Angela Burnham
Robert Kerschke
Intel
Raley's
Sam's Club
WalMart
Jemez Valley Credit Union
Elk Mountain Lodge
Jemez Trail Country Store
Jemez Valley Public Schools
Cuba Public Schools
Menaul School
Environmental Education Assoc. New Mexico
Santa Fe Watershed Association
City of Albuquerque Open Space Division
Albuquerque Water Festival
Santa Fe Water Festival
Conservation Education, Washington Office
Jemez Mountains Electric Co-op
Okanogan/Wenatchee National Forests
Umatilla National Forest
Becky Tanguay
Bill Dowdy
Dan O'Connor

Stream Inventory

In partnership with the Valles Caldera National Preserve, Santa Fe National Forest implemented its second season of successful stream inventory, utilizing the regional

Fish Distribution

Snorkeling continued to be a mainstay for determining fish composition and distribution on the Santa Fe National Forest. This protocol was introduced to the Santa Fe last year and offered opportunities to teach others about how fish interact with their habitat. While at stream inventory training, attendees had the pleasure of enjoying the last day in the water snorkeling. Individuals from the Santa Fe, Carson and Lincoln National Forests along with the Regional Office, Bosque School, Rocky Mountain Research Station and New Mexico Game and Fish were trained over the summer season. This upstream snorkeling methodology paved the way for nearly **100 miles** of mapping streams for fish composition and distribution across the Forest.



San Antonio Creek. Bosque School

- San Antonio Creek
- Pecos River
- Cow Creek
- Cecilia Creek
- Capulin Creek
- Rio Gallina
- Rito de los Pinos
- La Jara Creek
- Rio Puerco
- Rio Cebolla

Hutton Program

Again, the Santa Fe National Forest led the way across the nation in mentoring high school students through this program. American Fisheries Society sponsors the Junior Fisheries Program through the Hutton Fund. This program offered 52 opportunities in 23 states to high school students across the United States to be mentored by a Forest Service Fisheries Biologist.



Curtis.

Again, just like its inaugural year, the Santa Fe hosted four students, three from Gallina High School. Students were located in Jemez, Coyote and Las Vegas and assisted the fisheries, watershed and range programs, participating in monitoring, stream inventory and fish population surveys. Many thanks to Freddy Velasquez, Alison Dean, Beth Holtzman, Anna Jaramillo, and Michael Lujan for meeting the specific needs of each student.

High Lakes Inventory

The Santa Fe National Forest Fisheries Program spearheaded the return of the high lakes inventory to the Forest. This protocol measures water quality in high mountain lakes to monitor the effects of air pollution. In addition, we map the lakes for human use and impacts as well as determine the success of lakes for survivability of a fisheries.



Upper Truchas Lake

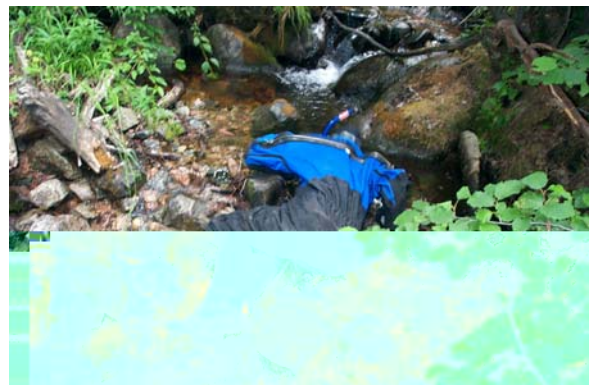


Our epic trip into the subalpine of the Pecos Wilderness was met with an early snowstorm that limited the number of lakes surveyed. But our journey started an inventory and monitoring program, which will assist the Forest and State in managing the wilderness and its high mountain waters.

San Pedro Parks Wilderness Monitoring

After its inaugural beginning in 2001, an elaborate report was completed and follow-up monitoring began. A week-long intensive effort was conducted by the fisheries, watershed and recreation program, covering most of the riparian area and streams within the 40,000-acre San Pedro Parks Wilderness.

The fisheries program focused on steep sections of the wilderness, locating upper limits of fish species. Four new Rio Grande cutthroat trout populations were located. Arizona willow, a regional sensitive species, was monitored and water quality testing was conducted at established stations. This effort will continue on an annual basis, assisting range and recreation with the implementation of their programs.



La Jara Creek. Sean.

Río Grande Cutthroat Trout Candidate Assessment

The US Fish and Wildlife Service performed an assessment to determine whether or not the State Fish of New Mexico, Río Grande cutthroat trout, should be a candidate for listing under the protection of the Endangered Species Act. With a short turnaround time mandated by a federal judge, Sean Ferrell prepared Santa Fe National Forest's response paper to this assessment. The process pushed the fisheries program into consolidating its database to formulate maps of current distribution (with many thanks to Deby Sarabia and Julie Luetzelschwab). The Forest took it one step further and proposed watersheds for future re-introduction. Sean also met with specialists on all districts to outline all completed, on-going and future restoration efforts since the implementation of the Forest Plan (1987). It was amazing to see all the work that the Forest has been doing to improve watershed health.

In June, USFWS released their findings and determined that Río Grande cutthroat trout is not warranted to be a candidate, mostly due to all the positive work the forests have been doing in partnership with the states to improve watershed health and expand populations.

Río Grande Cutthroat Trout Re-introduction

With the completion of the State of New Mexico Long-Range Management Plan for Río Grande cutthroat trout and the soon to be signed Statewide Conservation Agreement, the Santa Fe National Forest in partnership with New Mexico Game & Fish, Valles Caldera National Preserve, Trout Unlimited and New Mexico Trout is finalizing a strategy to develop large metapopulations of the native fish assemblage. What this means is that a watershed will be re-invented. The native fish, such as Río Grande cutthroat trout, sucker, chub and longnose dace, will be returned to their native waters and non-native fish will be removed.



San Antonio Creek.

While this will not happen everywhere, certain watersheds are under consideration, with the largest project being in the Jemez Headwaters, encompassing ground on the Valles Caldera National Preserve and Santa Fe National Forest. This is a long-term effort that will involve detailed planning as well as a full-scale education campaign, beginning in 2003.

Drought Condition Assessment

New Mexico was hit hard by drought this year. With little snowpack and seemingly no rain that followed, streams across the Forest began to dry up. Key streams to the recovery of Rio Grande cutthroat trout were walked to determine if populations needed to be rescued. Timing and location appeared to be everything. Some populations appeared intact early in the summer only to be dried up by fall. Others showed no signs of stress with a successful spawning and rearing period.

It is likely this is only the beginning with some predictions showing that we are only in the young stages of a 15-year drought. The fisheries program will continue to monitor these populations while moving forward to expand the range of our native fish. This is obviously an indicator that the fish needs greater room and larger streams to survive.



Rio de las Vacas

The Vacas Project

After the completion of a stream inventory in Rio de las Vacas in 2001, it was apparent that the stream needed a little love. The Regional Office financed the detail of Gary Asbridge from Mount Hood National Forest to spearhead the development of the grand Rio de las Vacas Stream and Riparian Restoration Plan and Recommendations. Or better known as the Vacas Project.



Rio de las Vacas.

James Simino led an IDT process to complete the NEPA for the Vacas Project, which is slated for beginning implementation in 2003. This large-scale effort will include road closures, fencing, barrier improvement and stream and floodplain habitat construction such as log jams and boulder placement. This project is financed by Trout Unlimited, Bring Back the Natives and the Habitat Stamp Program.

Post-Burn Watershed Recovery Monitoring

The Cerro Grande Burn Area continues to be monitored to determine the watershed recovery rate. In partnership with Colorado State University, aquatic macroinvertebrates are being looked at to determine aquatic biota recovery. This is used as a flag to determine the timing of re-introducing native fish.

Guaje Canyon. 2000. (photo courtesy of Nicole MacRury)

Nicole MacRury is spearheading this effort and has determined Capulin Canyon, which was killed by the Dome Fire in 1996, is ready for the return of native fish. Rio Grande cutthroat trout may return to these waters in the near future with an agreement between New Mexico Game and Fish, Bandelier National Monument and the Santa Fe. Due to budget woes, Nicole will wrap up her assessment this winter.

Aquatic Education

Lisa Matlock was hired to coordinate the Forest's education efforts at the end of July. She joined the fisheries staff for snorkeling, electrofishing, and the high lakes inventory so she can help students, teachers, and the visiting public to understand their impacts, both positive and negative, on forest waters. She is planning and has begun presenting programs in established forums such as the Albuquerque Water Festival, Kid's Fishing Day and Noche/Dia del Rio celebrations. She has also begun assisting with teacher training and presenting Respect the Rio messages to student groups. In her short tenure, she has already reached **122 adults** and over **100 kids** with many more to come. Prior to her arrival, the program reached an additional **375 kids** and **236 adults** at conferences, classrooms, festivals and field trips.

Respect the Río



Excitement is brewing in the Respect the Río (RtR) program headed by the Jemez/Cuba Resource Area. RtR is an educational program that empowers local communities and forest users to participate in watershed restoration. As we continue to build its foundation, accolades are being received. Respect the River/Río, which is located on four national forests, was awarded the International Spirit of the Land Award at the 2002 Winter Olympics in Salt Lake City for "Outstanding Achievement in Environmental Education." The Regional Forester continues to use RtR as an exemplary effort in partnerships, restoration and education. We continue to spread the word through presentations, such as at a national conservation education conference in Albuquerque.

With funding from NMED/EPA, the Santa Fe National Forest hired their very first Education Coordinator. Lisa Matlock has quickly escalated the education portion of Respect the Río, bringing in fresh ideas, pursuing more funding and already offering school programs. Prior to her arrival, James Simino garnered a strong working relationship with the Bosque School, who is assisting with watershed health monitoring.

RtR has new mascots, Carlos the Rio Grande cutthroat trout and Perl the Stonefly. The mascots are used to help deliver educational messages about native species at large events, schools and community programs. In addition, the Rio Grande Cutthroat Trout Life Cycle Game has become a huge hit. Requests for the game board have spread across the region, prompting us to create an electronic version. We are currently pursuing funding to create a Children's Book that would accompany a colorized version of the game.

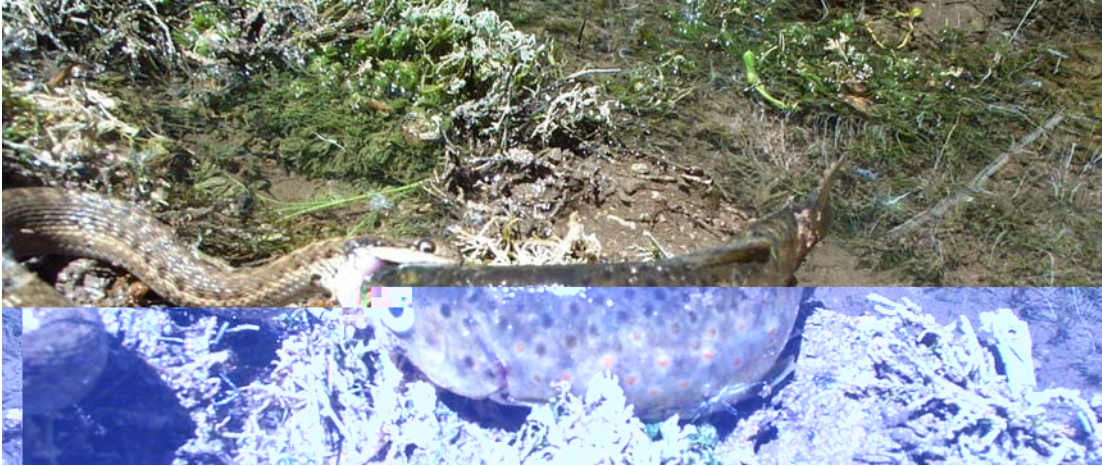
2003 expects to be a grand year for Respect the Río as we begin to implement many of the restoration components, start our Contact Ranger program with the visiting public, and hold educational seminars, which will introduce area residents to aquatic issues throughout the Forest.



Perl and Carlos.

Exotic Species Removal

The bonus of the drought is that it offers expedient opportunities to remove non-native brown trout that are pressuring native Rio Grande cutthroat trout. An expeditious effort was made in partnership with NMGF and NMED to blanket the Rio de las Vacas Watershed with electroshocking teams.



American Creek. One form of brown trout removal.

Over a period of three months, teams removed **350 brown trout** from **12.7 miles** of native trout waters in American Creek, Palomas Creek, Rito de las Perchas and Rio de las Vacas. This was a spinoff from work conducted last year on a small portion of Rio de las Vacas. This year the combined effort covered nearly all the waters above a barrier on Rio de las Vacas. While it was a valiant effort at removal, it confirmed that German brown trout have found their way to the very headwaters of Rio de las Vacas, where they had been removed twenty years ago. We plan to continue to perform these removals in the next year and then reassess if we will have to try another tactic.

Program Support

The Forest Fisheries program continues to develop and strengthen relationships with other programs and has provided input into on-going and upcoming projects. The projects are sponsored by recreation, forestry, fire, watershed and range, including:

- San Antonio Campground EA
- East Fork Jemez Wild and Scenic River EA
- Pecos Wild and Scenic River EA
- Jemez Wildland-Urban Interface Projects EA
- San Pedro Mountain Landscape Assessment
- Valles Caldera National Preserve Grazing EA
- Jemez National Recreation Area EA
- Buckman Water Diversion Project EIS
- Highway 126 Improvement Project
- Coyote EA/AMP
- La Presa EA/AMP
- Mesa Poleo EA/AMP

Kid's Fishing Day



Nearly **80 kids** and **over 50** adults turned out for the Forest's Annual Kid's Fishing Day at Seven Springs State Fish Hatchery in September. This event was jointly sponsored by New Mexico Game & Fish and Jemez/Cuba Resource Area.

This year's theme was "Bringing Back our Native Fish" to celebrate the grand re-opening of the Seven Springs facility as a native cutthroat trout hatchery. Kids were given a passport and if they participated in six educational booths, they received a T-shirt commemorating the day. The T-shirt was illustrated by Cuba Elementary, Jemez Day School, and San Diego River School students in Jemez Valley and Cuba, based on their best rendition of native fish.

KID'S FISHING DAY



Bringing Back Our Native Fish



Jemez Valley 2002



Booths included:

- Rio Grande Cutthroat Trout Life Cycle Game (USFS)
- Rolling River (USFS/NRCS)
- Gytaku (USFS)
- Whirling Disease (NMGF)
- Leave No Trace (USFS)
- Native Fish Anatomy (USFS)
- Fly Tying (Doc Minter)
- Tying Knots (Aquinardo Rodriguez)



**For further information about the Santa Fe National Forest Fisheries Program,
contact:**

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